

GREATER EFFORTS FOR DEVELOPMENT OF KNOWLEDGE ECONOMY IN VIETNAM UNDER OPTICS OF ECONOMIC POLICIES

MA. Vu Xuan Nguyet Hong

Dr. Dang Thi Thu Hoai

Central Institute for Economic Management,
Ministry of Planning and Investment

Abstract:

Development of knowledge economy in actual stage of Vietnam is to enhance the roles and contributions of knowledge and science & technology (S&T) in economy of the country. The promotion of knowledge economy in Vietnam would give contributions to the shift of economic structure which “by 2020 will basically to provide the model of economic growth based on deeply developed sectors, ensure growth of quality, enhance effectiveness and competitiveness of the country”. This paper uses the analysis framework of economic development policies applied by World Bank to demonstrate that the economic policies keep the equally important roles as S&T policies and other policies do for promotion of knowledge economy. Actual economic policies in Vietnam cause a lot of barriers which slow down, and even neutralize positive impacts from S&T policies. This can be seen as deeply rooted causes which do not turn yet S&T to driving forces for development as expected, despite numerous and long-lasting attentions and priorities provided by the Party and the State. In order to recover these negative aspects in the future time, the economic policies should be focused on the establishment of business environment of healthy and equal competition. They need also to enforce enterprises to apply S&T and knowledge based solutions to enhance their market competitiveness.

Keywords: *Knowledge economy; Economic policies; Science and technology.*

Code: 14033101

1. Introduction

Development of knowledge economy is to enhance the role and contribution of knowledge and S&T for economic development and growth. In fact, S&T is always considered as important tools for that and it gets attentions for economic development in Vietnam. The first legal background for science research, technological application and transfer in production-business activities was set up since early years of 1980s. It gets improved fast with the promulgation of numerous legal documents such as Law on S&T, Law on Technological Transfer, Law on Intellectual Property, Law on High Techs and etc. The public investments for S&T get high attentions and priorities and were made with many investment

programs including investments for infrastructure and R&D activities. Many incentive tax and credit measures were applied to promote S&T applications in enterprises. In practice, however, the achievements found as results of application of economic policies remain very modest. Economic growth is driven mainly by capitals and labors, and the contributions of S&T measures are not of the same size which was lower than 20% for 1991-2011 period. Export commodities have low contents of technologies, only 67% of export values¹. Investments by enterprises for application and innovation of technologies remain very low.

This paper uses the analysis framework of economic development policies applied by World Bank to identify the causes and the status of that under optics of economic policies. The main structure of the paper is set up with the following sections, namely Section 2 presents shortly the analysis framework and the interpretation of roles and targets of economic policies in development of knowledge economy. Section 3 provides the global evaluation of the actual status of business environment and consequences of actual economic policies. Section 4 presents the analysis of causes generated from economic policies. And, Section 5 proposes some orientations for solutions and conclusions.

2. Development of knowledge economy and the roles of economic policies

By virtue of definition given by World Bank, the knowledge economy is a kind of economy which uses knowledge as main driving forces for growth and development. Vietnam economy is now at low development level where labor is found as stronger producing factor in comparison to knowledge. Therefore, the target to turn knowledge to a main driving force for economic growth is low feasible. Then the notion of development of knowledge economy in actual context of Vietnam is interpreted as enhancement of contributions of knowledge in development. From vision of sector approach, the development of any economy passes some stages, from agricultural, industrial, post-industrial and then knowledge based economies. From vision of producing factors approach, an economy can develop on backgrounds of labor, capitals and knowledge. The vision combining the two visions of approach would show that the development of knowledge economy in Vietnam is, in fact, the promotion of more intensive use of knowledge for modernization and industrialization of the country. In actual context, the development of knowledge economy is the solution to get out from economic stagnation and to shorten the time to achieve the objectives of modernization and industrialization of the country.

¹ Central Institute for Economic Management.

For development of knowledge economy, studies by World Bank [5] show that it is necessary to build up four pillars, namely: i) business and institutional environment, ii) education and training, iii) IT infrastructure, and iv) innovations. Among them, the first pillar is mainly focused on the establishment of business environment of equal competition which requires enterprises to carry out continuously innovations and application of knowledge for their own existence and development. The remaining pillars are mainly focused on creation of favorable conditions (human resources, infrastructure, connection of S&T and application) and encouragement of use of knowledge for development. The endogenous contents of these 4 pillars are summarized in Table 1.

Table 1. Four pillars of knowledge economy

4 pillars for development of knowledge economy	Endogenous contents of pillars
Business and institutional environment	Economic and institutional systems provides economic and institutional policies which secure effectively the mobilization and distribution of resources, encourage and motivate the effective use of existing knowledge and creation of new knowledge.
Education and training	People need to get education and skills which allow to create, to share and to use well knowledge.
IT infrastructure	Dynamic information infrastructure required to facilitate exchange, dissemination and assessment of information.
Innovation	Innovation system including enterprises, modernization and industrialization, consulting centers and other institutions. They have to be capable to get increasing volumes of knowledge of human kind, then to absorb and to apply them upon needs and to create new one.

Source: Chen and Carl, 2005.

Therefore, as the above table indicates, if the pillars of education and training, IT infrastructure and innovations are driven by various policies such as education policies, IT policies, S&T policies, then economic policies play their roles of impacts towards development of knowledge economy. It would be the pillar of business and institutional environment which would establish an environment where knowledge becomes the main driving force for existence and development of enterprises. If it is the case, the policies need to be oriented to the following main targets, namely:

- *Establishment of a business environment of equal competition on basis of market signals*: It is the first target and the prerequisite condition for development of knowledge economy, because the healthy competitive

environment which is based on actual capacities (containing knowledge) of enterprises would force them to mobilize their best and to carry out innovations for being capable of competitions on markets. In such an environment where the conditions of access to business chances and other production factors (capitals, labors and lands) are equal, enterprises need to mobilize knowledge to enhance their competitiveness. In this situation, the business environment set up on basis of equal competition would motivate all stakeholders to use the existing knowledge and to produce the new one. The eventual existence of inequalities in access to business chances or other production inputs would produce distortions in market signals which would not require enterprises to innovate technologies and to use knowledge but still remaining in advantageous positions. In context of globalization, the notion of “competition” covers this concept on local and international markets.

- *Facilitation and encouragement of use and creation of knowledge:* This target can be achieved through incentive regulations and policies to encourage the use and the creation of knowledge. They would create favorable conditions and motivate enterprises to use more knowledge in production-business activities.
- *Creation of comfortable and stable business environment:* The creation of a maximal comfortable business environment would encourage many enterprises to participate in market activities and the latter would contribute to the creation of a business environment of healthy competition. The stable business environment would help enterprises to build up long-term development strategies with various options to strengthen technological capacities. In fact, it is a prerequisite condition to encourage development, not only for knowledge economy but for any type of economy. This, however, can be considered as pre-conditions for development of knowledge economy because the higher developed economy would offer more chances to mobilize and to use more knowledge, then it leads to higher chances to develop the knowledge economy.

3. Business environment in Vietnam: Barriers to development of knowledge economy

According to assessment classification of World Bank, Vietnam is ranked low in terms of development of knowledge economy in comparison to other countries (Vietnam is ranked 104 among 138 nations by 2011). It has also the very low index for the pillar of business and institutional environment which is almost the lowest one among the 4 pillars. Table 2 presents indices of components for the pillar of business and institutional environment of Vietnam for two years 2000 and 2011 as well as the comparison to the ones

of some other nations. Column 1 and Column 2 are indices of the two years 2000 and 2011 of Vietnam for comparison purpose of improvement, and the last three columns are comparative indices of Vietnam where the score of 10 points is the highest level of the comparative group of nations. Table 2 shows also that one decade later Vietnam produced certain improvements for some indices, particularly the index of domestic credits in comparison to GDP of private sector. However, the topic worthy for discussion is related to business environment for development of knowledge economy where the competitiveness index gets down, from 5.3 to 4.8. A special attention should be paid to this fact because, in the actual context, where Vietnam gets opened for a larger and deeper integration into the world's economy with a higher development of private sector, the competitiveness index should get higher.

Table 2. Some indices of business environment by format of assessment of World Bank

Indices of economic and institutional environment	Vietnam indices by 2000	Vietnam indices by 2011	Indices compared to all the nations	Indices compared to low income nations	Indices compared to East Asia-Pacific nations
	(1)	(2)	(3)	(4)	(5)
Business environment					
% GDP capital accumulation, 2005-2009	30.2	38.8	9.79	9.51	8.82
% Trading, 2009	113	147	9.22	9.75	8.24
Tax and non-tax barriers, 2011	51	68.9	1.82	2.44	1.18
Healthy rate of bank system (1-7), 2010	3.6	4.7	3.28	3.33	3.33
% Exp/GDP, 2009	55	68	8.87	10	7.65
Interest distribution, 2009	7	3	9.16	10	8.75
Domestic competition rate (1-7), 2010	5.3	4.8	4.81	6.94	2
% Loan credit by private sector/GDP, 2009	35	113	8.31	10	5.63
% Business register costs/GNI per capita, 2011	-	10.6	4.96	7.38	4.12
Number of days required for establishment of enterprise, 2011	-	44	1.21	1.9	2.94
Costs of contract realization (% loan), 2011	-	28.5	4.26	5.48	4.12

Source: World Bank.

Table 2 shows well that Vietnam is particularly drawn back in comparison to the nations in the region in term of increased domestic competition pressure. It does not yet create favorable conditions for production-business activities which are seen through low scores of the healthy rate of banking system, domestic competition rate, establishment of enterprises, contract power and institutional environment. Among the three main targets of economic policies for development of knowledge economy, as noted in the Introduction section, Table 2 shows that the first barrier towards development of knowledge economy in Vietnam is located in the lack of comfortable conditions for activities by enterprises in almost all the aspects, from establishment stage up to regulations to be applied to business-production activities including the ones of costs of contract realization, regulations for bankruptcy and others.

Actual business environment does not create the equal conditions in term of access to business chances and basic input elements for production such as credits, land use, natural resources and etc. The inequality is seen between State-owned enterprises and non-State-owned enterprises, and between domestic private enterprises. State-owned enterprises have close connections to State agencies and, therefore, they are more conveniently positioned in their access to business chances which are under decision by State institutions including public investment projects and incentive measures applied for development of their sectors. State-owned enterprises are also more conveniently positioned in their access to credit sources than private enterprises. This situation may come from practice of administrative regulations, guarantees from ministries and even business practice of banks (who may have tacit interpretation of availability of State guarantees). State-owned enterprises keep also dominating positions in exploitation and use of natural resources highly needed for production such as coal, power and others.

The above noted inequalities occur not only between State-owned enterprises and non-State-owned enterprises but also among non-State-owned enterprises. Research by Harvard Kennedy School and Fulbright (2013) provided a suggestion of the existence of so-called friendly private enterprises. This type of enterprises has an increasing tendency of appearance and the situation gets more serious. It is a distorted consequence of policies for development of private enterprises. The appearance of this type of enterprises can be interpreted as results of non-transparencies and inequalities in access to business chances which come from practice of State agencies or State-owned enterprises. Those business chances are mainly based on connections to State agencies (this type of enterprises is called by business community as back-yard companies) or large corporations.

These inequalities are also barriers towards development of knowledge economy since the conveniently positioned State-owned enterprises keep on their market wins without spending great efforts for innovations. This leads to a vicious circle causing a far going deviation from the right path of development of knowledge economy. The problem is that State-owned enterprises and so-called friendly enterprises get stronger and they get profits from economic resources while the other sectors, even motivated for innovations, do not get enough resources for development. In addition, the stronger tendency of this type of conveniently positioned enterprises will control markets, create distortions in market signals and then lead other enterprises to practice of short-term business, speculative actions and fast benefit earning.

Actual business environment makes enterprises focus their potentials and resources on practice of speculations and search of privileged benefits instead of development and enhancement of their technology and management capacities. These privileged benefits locate in use of capitals, natural resources, lands which can be earned in short-term plans and appear more attractive than the benefits from innovations of technologies and use of knowledge. Business environment encourages the search of opportunities for fast earned benefits, the creation of privileged contacts, the maximal use of incomplete legal regulations, and other legal violations. All of these actions lead to short-term benefits rather than long-term visions for technological innovations and knowledge based development. The typical example of this is the serial collapse of enterprises as results of the collapse of the securities market and the real estate market.

The monopoly situations are still observed in some sectors, particularly those who have direct impacts to input costs of production-business activities such as power, oil, gas and others. In the meantime, the regulations related to control of monopoly are not found suitable including the requirements for transparency of information. The case of requirement for public information about cost composition and accounting of the power sector remains a typical example of unjustified inclusion of numerous expenditures in the composition of power costs. This situation leads to higher expenditures of enterprises.

Actual business environment, in addition to the above noted barriers towards development of knowledge economy, *does not yet create favorable conditions and does not encourage enterprises to use knowledge*, despite many State regulations were issued to support this trend. According to results of a survey for competitiveness and technologies conducted in 2012 (see CIEM, DOE, GSO, 2013), enterprises face so many obstacles despite

they wish to renovate technologies. The most obstacles are their limited capital sources and low qualified human resource. Those who carry out technological innovations base their initiatives on their own capitals (more than 75%) and they get only 17% of that from credit sources.

Actual business environment discloses clearly *the paradox for development of knowledge economy* in Vietnam in the fact that those enterprises which have sources for technological innovations (financial, human resource and infrastructure) are not motivated for technological innovations (they are State-owned and FDI enterprises) while those enterprises (in private sector) which need to innovate their activities have no chances (financial and human resources). The sector of State-owned enterprises has most potential (particularly for financial source) for technological innovations but they put efforts on chasing of privileged benefits without any motivation for innovations. It is not better in FDI sector where the majority of enterprises do their investments to get benefits from abundant labors, low developed local market and protective policies for domestic investments. The incentive policies as well as other terms (human resource and infrastructure) are not enough to orient this sector to investment for technological innovations in Vietnam. Research results for FDI investment during the last period show that, despite of higher level of machinery, equipment and technologies in comparison to private sector, the presence of FDI investments does not make considerable technological impacts as Vietnam expects [6]. In the meantime, the private sector in Vietnam may have certain motivations for innovations but they can do them only on basis of small scale, limited capital access and unequal competitions, then they have no way to push up technological innovations.

4. Reasons rooted from economic policies

4.1. Legal framework for market economy

Vietnam has produced great efforts for issuing legal documents which serve as background for market economy operation. Up to now, the basic economic legal framework was set up relatively in full with the main laws such as Law on Enterprises, Law on Competition, Law on Trade, Law on Prices, Law on Protection of Consumers and others. Particularly, the legal framework for S&T activities and technology transfer was established very early, such as Resolution No. 175/CP dated 29th April 1981 for conclusion of economic contracts in activities of scientific research and technical implementation, the regulations stipulated in Law on Foreign Investment in Vietnam promulgated in 1987, Law on S&T promulgated in 2000 and amended in 2013, Law on Technology Transfer promulgated in 2006, Law

on Intellectual Property promulgated in 2006, Law on High Techs promulgated in 2007 which govern S&T activities and State policies to encourage and to promote activities for technological development.

However, for establishment of business environment with healthy competitions which provides favorable conditions for development of market economy, the actual legal system still makes see many shortages, particularly for quality and efficiency of legal enforcement, namely:

First, many regulations in legal documents are not found suitable. Particularly, some of them are not stipulated clearly which offer chances for negative actions and corruptions from policy executing agencies. Some of them, at the same time, lead to discrimination between economic sectors as well as to limited rights of free trade.

Second, legal regulations and enforcement actions of land ownership and natural resources are not found suitable. Some of them may lead to chances for speculations and illegal benefits and even do not encourage the use of knowledge for production-business activities. This is seen through the following points: i) cultivating lands have a limited time of assignment of use rights (50 years) which may prevent long-term investment targets and do not encourage long-term investment plans; ii) planning works and regulations towards the land use are not found transparent. They are not announced largely and timely, particularly it concerns the transparency in access to resources of lands. The latter leads to specific actions for privileged benefits, and iii) prices on real estate market and natural resources are not found reasonable and their distribution is not based on market rules which contribute to the appearance of bubbles on real estate markets during the recent time.

Third, legal regulations on the distribution and use of public resources are not found clear and they cannot provide the effective use of these resources. Public investments actually make about 37% of the total social investments but the regulations towards public investments remain largely spread in sub-law documents. They do not stipulate clearly the liability of concerned sides. Law on Public Investment actually is under discussion. Law on Tenders was promulgated. These laws, however, have a very formal nature which cannot secure that the tender winners in State-budgeted projects are really the best implementers. This would not motivate the use of knowledge for better outcomes of works. Other State resources are distributed and used according to master plans (for lands, natural resources and etc.). But the problem turns out to be the process of establishment of master plans itself. It is not found scientifically based, objectively set up and publicly and transparently announced. It is not based on the procedures which are

capable to prevent impacts from interests of involved groups then cannot secure the effective use of resources. The establishment of mechanisms of use is not found effective and they lead to ineffective use of knowledge to mobilize better these resources and practice of privilege-based business.

Fourth, the legal system which provides background for competition was established but its impacts for healthy competitive system, particularly for supervision purpose and lawful consistency, remain still very limited. For example, Law on Competition was promulgated early, since 2005, but the implementation of this law faces many problems. The enforcement duties of this law are assigned to Ministry of Trade and Industry while so many enterprises subjected to the governing powers of this law are under direct management of this ministry. Then, strong measures of treatment are difficult to be expected in case of violations by these enterprises [10].

Fifth, the enforcement of IP legal regulations and the protection of interests of the enterprises who are active in use of knowledge for production-business activities remain weak. Even Law on Intellectual Property was promulgated since 2005 but the capacities for legal enforcement are still limited. Fakes, imitations and low quality commodities are found largely on markets. Enforcement forces are not strong enough and are incapable to secure the proper implementation of the law. In addition, Law for Protection of Consumers which gets valid since 2011 has limited practical powers to protect the interests of consumers.

Sixth, the effectiveness of legal enforcement in general remains low; particularly it concerns the inconvenient legal procedures for protection of interests of enterprises. Results of surveys for provincial competition index (PCI) by VCCI in 2012 show the low level of “Legal institutions”. The survey team noted a low level of confidence of enterprises towards the legal protection for their rights in term of land use, assets and contract implementations. Particularly enterprises have reduced confidences and reduced use of services of courts to settle contract disputes. It is a business practice that the bankruptcy is used for re-structuring of resources but the enforcement power of Law on Bankruptcy is found very low. During 2008-2011 period, the courts received only 636 applications for bankruptcy from enterprises and only 45 of them were declared bankrupt.

Seventh, master plans are part of the legal documents which are used largely in Vietnam. But the question about the quality of master plans remains open. Many of them risk to be abused causing bad impacts to business environment of equal competition. Many master plans are used as backgrounds for investment policies, resource distribution and license issue. It particularly concerns the master plans for sector development. Even some

master plans were set up under pressure from groups of interests. Many master plans are used to prevent and to limit the market participation of various actors, to neutralize the effectiveness of competition rules and to remove the motivation for improved outcomes.

4.2. Policies towards State-owned enterprises

In the actual context of Vietnam, policies towards enterprises cause great impacts to the orientation of development of knowledge economy because of the following reasons:

- State-owned enterprises hold very huge resources of economy. They have more potential for development than the one of domestic private sector in term of use and creation of knowledge for technological innovations. Actually, the State sector has 1309 State-owned enterprises under full State ownership. They keep about 40% of business capitals, 30% of credit capitals, 45% of total asset volumes of the sector of enterprises while they make only about 0.3% of the total number of enterprises over the whole country [7]. This sector, therefore, has the full conditions, particularly the capitals, for application and creation of knowledge rather than other sectors. If this sector finds itself active and pro-active in use and creation of knowledge, they would make great impacts to development of knowledge economy in Vietnam.
- State-owned enterprises hold the dominating roles in important sectors. They keep also close connections, downstream and upstream, in economic structure, for example, construction, chemical industry, refined sugar, textile-garment industry, cement, steel and etc. In the meantime, the results of the survey on “the Vietnam technological and competitive capacities” conducted by the Central Research Institute of Economic Management for 2010, 2011 and 2012 show that one of the channels for technology transfer is found among domestic enterprises. Therefore, if State-owned enterprises were active to apply high techs then their propagating effects would be very large.
- State-owned enterprises actually hold the core economic sectors and fields through their supply of inputs for enterprises (e.g. power, coal, gas, communication service, assurance, transport, fertilizers, banking service and etc.). Therefore, their operational efficiency rate would cause great impacts to input costs of the whole community of enterprises.

Despite of great efforts for improvement of management mechanisms and policies towards State-owned enterprises in the recent decade, actually State-owned enterprises not only cannot make contributions to orient the development of knowledge economy as expected but cause impulses to

deviate the business environment from right course towards knowledge economy. The effectiveness of activities of State-owned enterprises remains low and they are not in line with the resources they are provided with. For making VND1 of turnovers, State-owned enterprises need to use VND2.2 of capitals while private enterprises need only VND1.2 and the one of FDI enterprises is VND1.3 [8]. About 12% of State-owned enterprises keep losses where, in 2011, the part of only 65 economic groups and corporations came up to VND49,000 billion (not including the losses from Vinashin), 8% of them keep break even and the debt of State-owned enterprises was VND1,300,000 billion by 2012. The debt/owner capital rate is averagely 1.82 but the individual cases experience a much higher rate. State-owned enterprises are not among leading enterprises in terms of application of knowledge in production-business activities and then they do not make considerable impacts to promotion of use and innovations of technologies. For example, the Vietnam textile-garment sector produces very big export volumes but many of them in this sector are based on outsourced fabrication contracts and they remain at very low levels in the chains of values. The low efficiency of State-owned enterprises, while being privileged in access to resources, leads to limitation of resources of other sectors.

This reality has rooted from many reasons including the ones from policies in other fields which will be analyzed in the next part. The deepest reason is the State economic system where State-owned enterprises are defined to keep “the leading roles” in economic development without a clear definition of the notion as well as supervision mechanism for realization of this role. The notion of “leading roles”, however, requires the exceptional creativity, because the notion of “leading roles” of the State economic system does not exist in theories as well as in experience of development of knowledge economy in the world. The unclear situation coupled with internal interests of concerned parties limits the active reform actions in this sector. This problem gets recognized long time ago but its solution remains in stagnation and then leads to a long series of policy-related problems.

In connection to development of knowledge economy, the policies applied to State-owned enterprises do not yet motivate them to pay attention to use and creation of knowledge. Actually, State-owned enterprises get still many privileges from business opportunities decided by State agencies without being required directly and toughly to use and to create new technologies. Because of that, these privileges make them conveniently positioned in comparison to other sectors. By other words, State-owned enterprises are nor required “to apply the market mechanism” [7]. All of this has rooted from unreasonable policies, despite of many efforts for improvement including the

projects “Innovation of enterprise management according to practice of market economy”, “Restructuring of State-owned enterprises” and others.

4.3. Policies of investment

The concerned policies include the policies of public investment, policies for FDI attraction and policies to encourage private investments. These policies keep important roles for development of knowledge economy in Vietnam for the following reasons:

- Public investments actually hold more than 37% of the total social investments [9] and cause great impacts to business environment and use of economic resources.
- Incentive policies are applied to investments by various economic sectors including the one to attract FDI sources and the one to promote innovations and transfer of technologies. FDI enterprises are expected to keep important roles for promotion of application and innovation of technologies. The private sector is found very dynamic with 45% of the total investments. They experience high pressure from competitions and naturally they need to use knowledge to remain in markets.

Policies for public investment towards development of knowledge economy are made through State investments for S&T development. The actual policies of public investments cause considerable impacts to business environment, particularly to those enterprises which use knowledge as driving forces to cope with competitions and keep their growths. Actually, the selection of enterprises for implementation of investment projects is not based on their capacities but mainly on basis of developed connections and mutual interests of involved sides. Actually, legal regulations exist to deal with this mechanism, such as regulations for tenders, but, in practice, they get modified and badly neutralized. As results, almost all the public investments get implemented by the enterprises from public sector or by private enterprises well connected to investment owners. This creates a good background for trends where enterprises do not need to use knowledge as driving forces for development but do only investments for development of connections.

Vietnam has attracted many large FDI sources which balance the shorted local investment sources. Up to now, FDI sources hold about 18% of GDP and make 23% of the total social investments. During the past time, FDI sector has made certain contributions to raise the pressure of competition, to enhance the quality of human resources and to promote technological innovations in Vietnam. They make contributions increase the productivity of domestic enterprises, particularly through supplies of inputs or

establishment of JVs. The impacts, however, from this for promotion of innovations and enhancement of technological level of Vietnam are not so big as expected. More than 80% of FDI enterprises in Vietnam use the middle level technologies of the world, only 5-6% of them use high technologies and 14% of them use out-dated technologies. From 1999 to 2012, this sector implemented about 400 contracts for technology transfer (which are registered and get certificates). The number is very modest in comparison to the total number of 14,000 FDI enterprises in Vietnam (CIEM, DOE, GSO, 2012).

5. Orientation for solution of economic policies for the time to come.

The targets to develop the knowledge economy in Vietnam by 2020 are to create the environment oriented to more use of knowledge and S&T for economic development. Accordingly, the targets of economic policies are oriented to establishment of a business environment of equal and healthy competition to facilitate in maximum and to encourage activities of application, innovation and creation of technologies and high techs. In the immediate future, up to 2016, the attention should be focused on efforts to set up a framework for a business environment of equal competition, to remove market distorting elements, to consolidate the financial-banking system, to distribute effectively capitals, to encourage the use of knowledge in production-business activities for some fields of competition advantage. The 2016-2020 period should be oriented to facilitate and to encourage strongly the use and the creation of knowledge in production-business activities. The following orientations could be taken into consideration for solution of policies.

** Improvement of the legal framework for a better business environment of equal competition to motivate and to encourage the use of knowledge in economy.*

The preparation and the issue of new laws would target the establishment of a business environment of equal competition, such as Law on Master Planning, Law on Public Investment, Law on Management and Use of State Capitals for Production-Business activities where the highlights are:

- Preparation, set up and promulgation of Law on Master Planning which would be tools for clear definition of master plans and plans for State management purpose in market economy mechanism. In that, some master plans would have higher legal values (said “hard master plans”) such as the ones for infrastructure, urban planning, land use planning and etc. However, the procedure to enhance the quality of this group of master plans and the status of transparency of these master plans should

be identified clearly. Other master plans such as the ones for development of sectors or organizations have only reference values for management and development by State agencies or some bigger values for purpose of identification of State investments for them. Maximal limitation of use of master plans of sectors and/or organizations as backgrounds to exclude the participation of various actors;

- Clear stipulation of mechanism of distribution of charges and liabilities in the procedure of implementation of public investments to get more effective use of capital resources. The organization works for implementation of public investment projects should provide the equal and transparent background for access and participation of actors from all the economic sectors which then lead to right selection of project implementers. Measures for monitoring and supervising of public investment projects should be established also;
- Establishment of the highest effectiveness of the legal framework for the most effective management and use of State investments for production-business activities.

Here, some laws need to be amended including Law on Lands, Law on Investments, Law on Enterprises, Law on Customs, Law on Bankruptcy, Law on State Budget in directions:

- Securing the equal access for all the types of enterprises to State-budgeted business chances where the best enterprises would get their chances and the search for privileged benefits or connection-based business chances would be reduced;
- Improving the legal frameworks for healthy operation of real estate market on basis of transparent information, right and market-based prices of land use, and reduction of speculations. Policies of distribution and use of agricultural and sylvicultural lands should be re-examined and renovated to encourage a higher productivity rate;
- Creating a favorable business environment for enterprises with maximal reduction of unnecessary administrative regulations. A system of State administrative services should be set up for business environment (service instead of administration);
- Facilitating the procedure and reducing the costs of bankruptcy procedures and market activities and facilitating the capital restructuring process.

** Innovation of policies towards the sector of State-owned enterprises to force them to accept equal competitions and, at the same time, to enhance*

the roles of State-owned enterprises in development and promotion of application and innovations of technologies in Vietnam.

Conducting the full accounts of costs for State-owned enterprises (land use, natural resources, other immobile assets, credits and etc.) and the transparency of information related to State-owned enterprises. These actions would allow to make the right assessment of effective operation of State-owned enterprises (efficiency rate of use of assigned capitals and assets). On basis of that, the orientations to mobilize the roles of this type of enterprises will be identified.

Separating the social roles/tasks from business activities of State-owned enterprises to secure the transparency and supervision of real effective operation of State-owned enterprises, and, at the same time targeting the most effective implementation of social targets of State-owned enterprises. First of all, the social tasks should be accounted clearly and separately from other activities of State-owned enterprises, then they should be adjusted to get the most effective implementation of social duties instead of the actual practice of appointment.

Removing all the scheme of access to production inputs (lands and capitals) on basis of administrative guides. By other words, the chances of access to these elements must be based on evaluation of capacities, financial situation, good practice of investment and management of enterprises. Then, all the actors are provided with the equal chances of access to production elements.

Conducting careful research and providing the exact definition of “the leading roles of State economy system” in general and in the roads towards development of knowledge economy in particular. Then the suitable steps towards the determined targets will be identified.

Providing, in the immediate future, every group or corporation with the clear norms for research, application, innovations and enhancement of technological levels, then higher competitiveness and positions in the global chains of values and the propagation of their impacts of their higher technological levels in the whole economic system. The above noted requirements are well justified on basis of outstanding potentials of State-owned enterprises in term of capitals, infrastructure and human resources. However, these requirements do not need to be coupled with assigned privileges. The incentive measures, if any, should be clearly and transparently defined.

Renovating the procedure of recruitment and supervision of directors of State-owned enterprises. They should be selected on basis of personal

capacities. A suitable mechanism should be required to mobilize their capacities for development of State-owned enterprises. The deposing mechanism should be set up and applied also.

** Enhancement of effectiveness of investment and creation of integrated policies to encourage non-State investment sources for application and enhancement of technological capacities and development of high techs application.*

- Promoting the implementation of actions for re-structuring the public investments;
- Completing early the mechanisms and policies towards investments under PPP models and in respect of international standards and practice. IPP models of investment should be promoted for the S&T field;
- Re-examining programs and projects of public investments under run to identify the priority order, and removing difficulties for better implementation, priorities being given to S&T projects, particularly for high tech zones;
- Binding the design and proposal of policies of S&T investment to the road map for development of knowledge economy;
- Re-examining incentive investment policies for S&T activities which would be backgrounds for amendment of incentive measures. This would increase the attractive forces of these incentive policies for investment on basis of the road map for development of knowledge economy;
- Paying attention to and facilitating the procedure to attract FDI projects of high techs, and realizing the transfer of core technologies.

6. Conclusion

First of all, it is necessary to state that the development of knowledge economy in Vietnam is to facilitate the bigger contributions of knowledge and S&T to socio-economic growth and development. At the actual stage of development, the promotion of development of knowledge economy is very necessary to make contributions to the shift of growth models, from extending to deepening, to the preparation of backgrounds for sustainable development (in sense that knowledge is unlimited while resources are limited) and break-through moves in development process.

In order to mobilize the roles of knowledge and S&T for the socio-economic development in Vietnam, many efforts are required for design and integrated implementation of systems of policies, including not only the

ones for S&T and innovations but also other policies such as the educational ones and particularly the economic ones./.

REFERENCES

1. CIEM, DOE, GSO. (2011, 2012, 2013) *Capacities of competition and technologies at level of enterprises in Vietnam: Results of surveys of 2010, 2011, 2012.*
2. VCCI, UKaid, USAid. (2011). *Re-examination of business regulations.*
3. Harvard Kennedy School and Fulbright. (2012) *Re-structuring of mechanism to target growth, equality and national sovereignty.*
4. Harvard Kennedy School and Fulbright. (2013) *Removing institutional obstacles to recover the growth.* Discussion prepared for the Program of Vietnam Senior Managers.
5. Derek H. C. Chen and Carl J. Dahlman. (2005) *The Knowledge Economy, the KAM Methodology and World Bank Operations.*
6. Nguyen Thi Tue Anh et al. (2008) *Impacts from FDI towards economic growth of Vietnam.*
7. Nguyen Dinh Cung. (2012) *Imposed disciplines of market competition push up the re-structuring of State-owned enterprises.*
8. Nguyen Dang Nam. (2012) *Improvement of policies and mechanism of financial management to enhance the effectiveness of State-owned enterprises.* Contribution paper for the Forum “Strong promotion of reforms in the sector of State-owned enterprises: Mindset and Actions”, Hanoi, 08th November 2012.
9. Tran Kim Chung, Dinh Trong Thang. (2013) *Re-structuring public investment: Results, Problems and Solutions.* Presentation at the workshop “Recovering growth and Re-structuring economy: Opportunities and Challenges. Hanoi, 22nd November 2013.
10. Le Dang Doanh. (2013) *Reforms of economic institutions and political institutions to establish the environment of equal competition.*